



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

DEC 20 2008

REPLY TO THE ATTENTION OF

AE-17J

CERTIFIED MAIL

RETURN RECEIPT REQUESTED

Mike Ingram, Plant Manager
Vesuvius USA
955 N. 5th Street
Charleston, Illinois 61920

Re: Finding and Notice of Violation at Vesuvius USA,
Charleston, Illinois

Dear Mr. Ingram:

This is to advise you that the United States Environmental Protection Agency has determined that Vesuvius USA's facility at 955 N. 5th Street, Charleston, Illinois (Facility) is in violation of the Clean Air Act (CAA) and associated state or local pollution control requirements. A list of the requirements violated is provided below. We are today issuing to you a Finding of Violation and Notice of Violation (FOV/NOV) for these violations.

The CAA requires the development of Primary and Secondary National Ambient Air Quality Standards to protect public health and welfare. To attain and maintain these standards, each State is required to develop an implementation plan. Illinois' State Implementation Plan (IL SIP) Rule 201.144 requires a permit be obtained prior to operating any air pollution sources or control equipment.

In addition, Title V of the CAA requires that States develop a comprehensive operating permit program for all major sources of air pollutants. Major sources include sources that have the potential to emit 100 tons per year or more of volatile organic compounds (VOCs). On November 30, 2001, U.S. EPA fully approved Illinois' operating permit program under Title V of the CAA. Under Title V, States may also issue federally enforceable operating permits to otherwise major sources with conditions that limit air pollution emissions below major source thresholds.

To meet the requirements of Illinois SIP Rule 201.144 and to limit emissions from Vesuvius below major source thresholds, the Illinois EPA issued Federally Enforceable State Operating Permit Number 95120117 (the FESOP) to Vesuvius on May 28, 2002. The FESOP includes the following requirements:

- 1) At all times when the associated equipment is in operation, the fume incinerators are to be maintained at a temperature greater than or equal to the manufacturer's recommended temperature (but no less than 1200 °F for FI-3 and 1400 °F for all other incinerators) or as demonstrated in the most recent compliance test. The purpose of the fume incinerators is to reduce emissions of VOCs. VOC emissions contribute to the formation of ground-level ozone (smog) which, among other things, is a respiratory irritant and can lead to serious respiratory ailments such as asthma, pneumonia, and bronchitis.
- 2) Any exceedances of the requirements of the FESOP as determined by the records required by the FESOP shall be reported to the Illinois EPA.

EPA finds that the Vesuvius facility has violated the above listed operating permit requirements.

Section 608 of the CAA requires the Administrator of EPA to promulgate regulations establishing standards and requirements regarding the use and disposal of "Class I" and "Class II" ozone-depleting substances. In accordance with Section 608 of the CAA which required EPA to promulgate regulations regarding the use and disposal of ozone-depleting substances, EPA promulgated regulations at 40 C.F.R. Part 82, Subpart F, applicable to recycling and emissions reduction of ozone-depleting substances. These regulations include the following requirements:

- 1) Owners or operators of industrial refrigeration equipment with coolant charges of 50 pounds or more have 30 days to repair all leaks that occur at a rate of 35 percent of the total coolant charge during a 12 month period.

- 1) Owners or operators of industrial refrigeration equipment must conduct an initial verification test at the conclusion of any repair efforts.
- 2) Owners or operators of industrial refrigeration equipment must conduct a follow-up verification test within 30 days after the initial verification test.
- 3) Owners or operators of industrial refrigeration equipment must develop a one-year retrofit and retirement plan within 30 days of discovering the exceedance of the applicable leak rate or within 30 days of a failed follow-up verification test.
- 4) Owners or operators of industrial refrigeration equipment must retrofit or retire such equipment within one year of failing to verify that the repairs have been successfully completed.
- 5) Owners or operators of industrial refrigeration equipment that fail a follow-up verification test must notify U.S. EPA within 30 days of the failed follow-up verification test.

EPA finds that the Vesuvius facility has violated the above listed regulations from 40 C.F.R. Part 82, Subpart F.

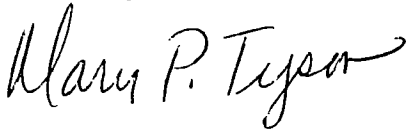
Section 113 of the CAA gives us several enforcement options to resolve these violations, including: issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action, and bringing a judicial criminal action. The option we select, in part, depends on the efforts taken by Vesuvius to correct the alleged violations and the timeframe in which you can demonstrate and maintain continuous compliance with the requirements cited in the FOV/NOV.

Before we decide which enforcement option is appropriate, Section 113 of the CAA provides you with the opportunity to request a conference with us about the violations alleged in the FOV/NOV. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for your facility's technical and

management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

The EPA contact in this matter is Erik Hardin. You may call him at (312) 886-2402 if you wish to request a conference. EPA hopes that this FOV/NOV will encourage Vesuvius' compliance with the requirements of the Clean Air Act.

Sincerely yours,



Stephen Rothblatt, Director
Air and Radiation Division

Enclosure

cc: Julie Armitage, Manager
Compliance and Systems Management Section
Illinois Environmental Protection Agency

United States Environmental Protection Agency
Region 5

IN THE MATTER OF:)	
)	
Vesuvius USA)	NOTICE OF VIOLATION and
Charleston, Illinois)	FINDING OF VIOLATION
)	
Proceedings Pursuant to)	EPA-5-07-IL-02
the Clean Air Act,)	
42 U.S.C. §§ 7401 et seq.)	
)	

NOTICE AND FINDING OF VIOLATION

Vesuvius USA (you or Vesuvius) owns and operates a ceramic parts manufacturing plant at 955 N. Fifth Street, Charleston, Illinois (the Facility).

U.S. EPA is sending this Notice of Violation and Finding of Violation (NOV/FOV or Notice) to you for failing to maintain thermal incinerator/afterburner temperatures and failing to report such failures to the Illinois EPA as required in your Federal Enforceable State Operating Permit (Permit Number 95120117), issued under the Illinois State Implementation Plan. This Notice is also for failing to timely repair leaks of ozone-depleting substances from industrial process cooling equipment as required at 40 C.F.R. Part 82, Subpart F.

Section 113 of the Act provides you with the opportunity to request a conference with us to discuss the violations alleged in the FOV/NOV. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for the Facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

Explanation of Violations

1. On May 28, 2002, the Illinois Environmental Protection Agency (IEPA) issued Federally Enforceable State Operating Permit 95120117 (FESOP) to Vesuvius. It includes the following requirements to limit volatile organic compound emissions:

- a. Permit condition 7a. states that the Fume Incinerators/Afterburners ... shall be in operation at all times when the associated emission units are in operation and emitting air contaminants.
 - b. Permit Condition 7b.i. states that the combustion chamber of Fume Incinerator (FI-3) shall be preheated to at least the manufacturer's recommended temperature but no less than 1200 °F as demonstrated in the most recent compliance testing. It further states that the combustion chambers of the other five fume incinerators/afterburners be preheated to at least the manufacturer's recommended temperature but no less than 1400 °F in the absence of a compliance test.
 - c. Permit Condition 14. states that any exceedances of the permit requirements be reported to the Illinois EPA within 30 days after the exceedance.
2. During an inspection of the Facility on August 9, 2006, U.S. EPA observed that the Fume Incinerators/Afterburners were not preheated prior to the commencement of operation of associated emission units and that the incinerators began to cool down as the associated emission units began to cool down. The following are observations of fume incinerator/afterburner temperatures observed when associated emission units were in operation:

Fume Incinerator/Afterburner Temperatures Observed During a U.S. EPA Inspection on August 9, 2006

Incinerator Number	Incinerator Temperature Observed	Associated Emission Unit
FI-4	580 °C (1076 °F)	Keith Kiln (KK-1)
DK-1 Afterburner	510 °C (950 °F)	Drayton Kiln A (DK-1)
DK-2 Afterburner	714 °C (1317 °F)	Drayton Kiln B (DK-2)
FI-5	372 °C (702 °F)	Bickley Kiln (BK-1)

3. During the August 9, 2006, inspection, representatives of Vesuvius stated that it was standard procedure to turn on fume incinerators/afterburners at the same time the associated emission units were turned on as well as to turn

the incinerators/afterburners off when the associated emission units began a cool down cycle.

4. Vesuvius has not reported this practice to the Illinois EPA as an exceedance of the permit requirements.
5. On September 7, 1995, Vesuvius became subject to a portion of the regulations for the Protection of Stratospheric Ozone located in 40 C.F.R. Part 82, Subpart F. The Subpart F regulations contain Recycling and Emissions Reduction requirements for ozone depleting substances. The regulations in this Subpart that apply to Vesuvius include:
 - a. The Subpart F regulations at 40 C.F.R. § 82.156(i)(2), require that an owner or operator of industrial process refrigeration equipment normally containing more than 50 pounds of refrigerant must have leaks repaired if the appliance is leaking at a rate such that the loss of refrigerant will exceed 35 percent of the total charge during a 12-month period. Repairs must bring annual leak rates to below 35 percent during a twelve month period.
 - b. The Subpart F regulations, at 40 C.F.R. § 82.156(i)(9), require that owners or operators of industrial process refrigeration equipment must repair leaks pursuant to 40 C.F.R. § 82.156(i)(2) within 30 days after discovery of the leak.
 - c. The Subpart F regulations, at 40 C.F.R. § 82.156(i)(3), require that an owner or operator of industrial process refrigeration equipment conduct an initial verification test at the conclusion of the repair efforts.
 - d. The Subpart F regulations, at 40 C.F.R. § 82.156(i)(3), require that an owner or operator of industrial process refrigeration equipment conduct a follow-up verification test within 30 days after the initial verification test.
 - e. The Subpart F regulations, at 40 C.F.R. § 82.156(i)(6), state that an owner or operator of industrial process refrigeration equipment must develop a one-year retrofit and retirement plan within 30 days of discovering the exceedance of the applicable leak rate

or within 30 days of a failed follow-up verification test. The plan must be dated and kept at the site of the appliance.

- f. The Subpart F regulations, at 40 C.F.R. § 82.156(i)(3)(ii), require that an owner or operator of industrial process refrigeration equipment must retrofit or retire such equipment within one year of failing the follow-up verification test.
- g. The Subpart F regulations, at 40 C.F.R. § 82.156(i)(3)(iii), require that an owner or operator of industrial process refrigeration equipment that fails a follow-up verification test must notify U.S. EPA within 30 days of the failed follow-up verification test.

- 6. During the August 9, 2006, inspection, U.S. EPA was provided with maintenance records for the industrial process refrigeration equipment at Vesuvius. These records indicated leak rates for several units that exceeded 35 percent over a 12 month period and were not repaired within 30 days. No retrofit or retirement plans were included in the maintenance records.
- 7. At the time of the inspection, Vesuvius had not reported excessive leak rates to U.S. EPA for its industrial process refrigeration equipment.

Environmental Impact of Violations

- 8. Violations of VOC standards increase ground-level (tropospheric) ozone (smog). Ground-level ozone irritates lung airways and can cause wheezing, coughing, painful or difficult breathing, especially in people with respiratory problems. Repeated exposure can lead to more serious health problems like asthma, reduced lung capacity, and increased susceptibility to pneumonia or bronchitis. In addition, ground-level ozone inhibits the ability of plants to produce and store food, leading to ecological damage.
- 9. Violations of the standards for ozone-depleting substances lead to an increase in the depletion of stratospheric ozone ("the ozone layer"). The ozone layer protects humans as well

as many plants and animals by filtering harmful ultraviolet radiation from the sun.

12/20/06
Date

for Mary P. Tyson
Stephen Rothblatt, Director
Air and Radiation Division

CERTIFICATE OF MAILING

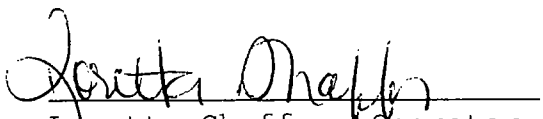
I, Loretta Shaffer, certify that I sent a Notice and Finding of Violation, No. EPA-5-07-IL-02, by Certified Mail, Return Receipt Requested, to:

Mike Ingram, Plant Manager
Vesuvius USA
955 N. 5th Street
Charleston, Illinois 61920

I also certify that I sent copies of the Finding of Violation and Notice of Violation by first class mail to:

Julie Armitage, Section Manager
Compliance and Systems Management Section
Illinois Environmental Protection Agency
1021 North Grand Avenue
Springfield, Illinois 62702

on the 22nd day of December, 2006.


Loretta Shaffer, Secretary
AECAS, (MN/OH)

CERTIFIED MAIL RECEIPT NUMBER: 7001 0320 0005 8919 2416